



Request for City Council Committee Action from the Information Technology Department

Date December 3, 2012

To: The Honorable Betsy Hodges, Chair, Ways and Means Committee

Subject: Contract with IBM for Intelligent Operations Platform (IOP) software and implementation services

Recommendation: Authorize proper City officials to execute a three year contract with IBM for Intelligent Operations Platform (IOP) software and implementation services. The total contract will not exceed \$2,871,640.

Prepared by Elise Ebhardt, Interagency Coordinator, 612-673-2026

Submitted by Otto Doll _____, 673-3633
Chief Information Officer

Approved by Paul Aasen _____
City Coordinator

Presenter in Committee Otto Doll

Policy Review Group X Not Applicable

Permanent Review Committee (PRC) X Approved 10/13/12

Prior Related Directives:
April 29, 2011: IBM First-of-a-Kind (FOAK) Grant – Approval to accept \$1.5 million grant from IBM and provide 10% City match.

Financial Impact: None. No additional appropriation is required.

Financial Impact (Check those that apply)

- X No financial impact (If checked, go directly to Background/Supporting Information)
- Action requires an appropriation increase to the Capital Budget
- Action requires an appropriation increase to the Operating Budget
- Action provides increased revenue for appropriation increase
- Action requires use of contingency or reserves
- Other financial impact (Explain):
- X Request provided to department's finance contact prior to the Committee Coordinator

Background/Supporting Information

On April 29, 2011 the City Council voted to accept a grant of \$1.5 million from IBM's *Smarter Cities* First-of-a-Kind (FOAK) program, and authorized \$150,000 in City matching funds to participate.

Achieved Result

Since approval of the grant, the City has partnered with IBM to create a solution for cross-department coordination and analytics to improve services and decision making in a number of areas.

Several analytical models will be available for coordinated operations planning and finding intervention opportunities:

- Anomaly Locator – determine inconsistencies in your data
- Causal Analyzer – point out cause and effect for impact analysis
- Hotspot Detector – identify trouble spots and contributing factors
- Pattern Discoverer – highlight consistent correlations in your data.

The system pulls data from several City, County, State and Non-Governmental Organization sources and displays the information in both geographical and temporal (time/calendar) views. The flexibility of the system allows the City's workforce new capabilities for situational assessment, planning, capturing knowledge, exchanging information, and measuring effectiveness.

The Special Permit Review Board and the Police Business Technology Unit are actively using the pilot system. The current system contains 65 data sources updated as frequently as every 15 minutes.

Intelligent Operations Platform (IOP)

The City and IBM are moving into a second phase of the project where a city-wide operational platform will be built and implemented to provide robust informational exchanges, analytics and predictive capabilities.

The Intelligent Operations Platform includes additional analytics models for cross agency data mining, integrated demand prediction, resource allocation and network planning, real-time alerting and situation tracking, and activity recognition and performance analytics. The IOP will also allow for dashboard information to key decision makers.

City departments have identified several potential uses for the IOP, categorized below by the City goal:

A City That Works

- Snow plow tracking
- House inspections feed assessors
- Special assessments projects feed assessors
- Civil rights goal attainment
- Inspections scheduling optimization

Livable Communities, Healthy Lives

- Hotspot new construction
- Foreclosure projections
- Monitor problematic landlords
- Identify elderly susceptible to extreme heat
- Map snow removal to elderly

- Early property warning
- Track homelessness movement
- Flu shot distribution
- EBT patterns
- Jobs & Economic Vitality
- Property valuations change after investment
- Homestead to rental property balance
- Job creation patterns

A Safe Place to Call Home

- Chronic offenders geographic restrictions
- Identify households prone to domestic violence
- DWI hotspots

- Identify youth at risk to violence
 - Police resource sharing across jurisdictions
 - Map off-duty officers to crime events
 - Police squad positioning
 - Graffiti watch
 - Predict manhole cover “popping”
 - Predict crime based on 311 “suspicious activity” calls
 - Vicious animal tracking
 - Safe routes to school
- Many People, One Minneapolis
- Identify contractors missing hiring goals on city work
- Eco-Focused
- Identify water leakage

Implementation Schedule and Financial Investment

In First Quarter 2013, City staff will have full access to the complete IOP solution to gain hands-on experience, and see the value of the tools for their business.

The initial First-of-a-Kind grant program provides the City with two years of use and access to IBM’s library of Smarter Cities applications. Implementation of the full IOP requires a three-year agreement with IBM for professional services and access to the additional software.

Year (see notes)	# of Users	Annual Cost	Comments
2013 (1)	105	\$ 499,000	\$4,750 per user per year for three years
2014 (1)(2)	210	\$ 859,000	Includes IOC licenses (3), cloud services and ongoing customization services
2015 (1)(2)	315	\$1,219,000	(FOAK developed system is free for 2 years)
Implementation	1-Time	\$ 294,640	
Total		\$ 2,871,640	
Notes 1) Cost recovery via repurposed desktop refresh funds 2) Cost recovery supplemented by rate adjustment 3) FOAK system operates within IBM’s Intelligent Operations Center (IOC) product			

Funding Plan

IT will use operational funds for the implementation phase. As we develop use cases throughout the city the cost for maintenance will be distributed to the departments who are users of the system, who in turn are realizing efficiencies from the dashboard and analytical tools.

IT will ensure that the contract shall contain a clause to exit the contract for convenience.

Request for Approval

IT is requesting authorization for proper City officials to execute a three-year contract with IBM for Intelligent Operations Platform (IOP) software and implementation services. The total contract will not exceed \$2,871,640.

The Permanent Review Committee reviewed and approved this request on October 11, 2012.